

## Abstract

- The invention relates to a process for producing a catalyst for gas-phase oxidations,
- 5 which comprises weighing a particulate inert support having a total mass of  $M_{\text{support}}$  into a fluidized-bed apparatus, providing an aqueous suspension of a catalytically active material or sources therefor and a binder having a binder content of  $B_{\text{susp}}$ , fluidizing the inert support by introduction of a gas stream heated to a temperature of  $T_{\text{gas}}$  at a flow rate of  $Q_{\text{gas}}$ , and spraying the suspension at a rate of  $Q_{\text{susp}}$  onto the fluidized inert
- 10 support. When  $Q_{\text{gas}}$ ,  $Q_{\text{susp}}$ ,  $B_{\text{susp}}$ ,  $M_{\text{support}}$  and  $T_{\text{gas}}$  are selected within the ranges
- $$\begin{array}{ll} 3000 \leq Q_{\text{gas}} [\text{m}^3/\text{h}] \leq 9000, & 1000 \leq Q_{\text{susp}} [\text{g}/\text{min}] \leq 3500, \\ 2 \leq B_{\text{susp}} [\% \text{ by weight}] \leq 18, & 60 \leq M_{\text{support}} [\text{kg}] \leq 240. \\ 75 \leq T_{\text{gas}} [^\circ\text{C}] \leq 120 \end{array}$$
- so that a parameter  $K$  defined as
- 15 
$$K = 0.020 Q_{\text{gas}} - 0.055 Q_{\text{susp}} + 7.500 B_{\text{susp}} - 0.667 M_{\text{support}} + 2.069 T_{\text{gas}} - 7$$
 satisfies the relationship  $127.5 \leq K \leq 202$ , high-quality coatings can be produced and the formation of twins made up of support particles adhering to one another can be avoided.